

# CUMULATIVE INDEXES

## CONTRIBUTING AUTHORS, VOLUMES 50-54

- Adelberg EA, 52:1-40  
Aerne BL, 51:125-49  
Ahmad SI, 52:591-625  
Altendorf K, 50:791-824  
Andrews JH, 52:105-26  
Appleman JA, 50:645-77  
Archelas A, 51:491-525  
Armstrong G, 51:629-59  
Arvin AM, 50:59-100
- Balows A, 54:1-17  
Bartlett MS, 50:645-77  
Battista JR, 51:203-24  
Bauer CE, 53:495-523  
Belay ED, 53:283-314  
Ben-Jacob E, 52:779-806  
Bennett JW, 53:411-46  
Bentley R, 53:411-46  
Bierbaum G, 52:41-79  
Bird TH, 53:495-523  
Bobik TA, 50:137-81  
Boemare N, 51:47-72  
Borst P, 52:745-78  
Branton PE, 53:577-628  
Breeuwer JAJ, 53:71-102  
Brown BA, 52:453-90  
Buchanan RJ Jr, 52:423-52  
Burrows SR, 54:19-48
- Carmel-Harel O, 54:439-61  
Chandler M, 53:245-81  
Chen M-H, 54:187-219  
Chiang SL, 53:129-54  
Citovsky V, 54:187-219  
Cohen I, 52:779-806  
Condemine G, 50:213-57  
Coppens I, 54:129-56  
Cornelis GR, 54:735-74  
Cotter PA, 54:519-65
- Courtoy PJ, 54:129-56  
Cozzone AJ, 52:127-64  
Cypionka H, 54:827-48
- Davis RE, 54:221-55  
De Backer MD, 54:463-98  
Deckers-Hebestreit G, 50:791-824  
Dijkstra BW, 53:315-51  
de Jong E, 51:375-414  
de Konig-Ward TF, 54:157-85  
de Lorenzo V, 51:593-628  
DiMaio D, 52:397-421  
DiRita VJ, 54:519-65  
Dobbelaere D, 53:1-42  
Domingo E, 51:151-78  
Dover LG, 54:881-941  
Dowds B, 51:47-72  
Dubnau D, 53:217-44  
Dunny GM, 51:527-64  
Dybvig K, 50:25-57
- Eisenstark A, 52:591-625  
Elsen S, 53:495-523  
Engelberg-Kulka H, 53:43-70  
Ernst PB, 54:615-40
- Fairlamb AH, 52:745-78  
Fauci AS, 50:825-54  
Field JA, 51:375-414  
Forst S, 51:47-72  
Francis SE, 51:97-123  
Fuqua C, 50:727-51  
Furstoss R, 51:491-525
- Gaal T, 50:645-77  
Ge Z, 53:353-87
- Gershon AA, 50:59-100  
Gilllin FD, 50:679-705  
Glaser G, 53:43-70  
Gold BD, 54:615-40  
Goldberg DE, 51:97-123  
Golden SS, 53:389-409  
Gordon GS, 54:681-708  
Gosink JJ, 53:189-215  
Gourse RL, 50:645-77  
Greenberg EP, 50:727-51  
Griffin DE, 51:565-92  
Griffith DE, 52:453-90  
Guarente L, 52:533-60  
Gull K, 53:629-55  
Gundersen-Rindal DE, 54:221-55  
Gutnick DL, 52:779-806
- Hacker J, 54:641-79  
Hammer BK, 54:567-613  
Hardwick JM, 51:565-92  
Haren L, 53:245-81  
Harwood CS, 50:553-90  
Hernandez-Pando R, 50:259-84  
Heussler V, 53:1-42  
Hillen W, 54:849-80  
Holden DW, 53:129-54  
Holland JJ, 51:151-78  
Howard RJ, 50:491-512  
Hughes KT, 52:231-86  
Hugouvieux-Cotte-Pattat N, 50:213-57  
Hurst GDD, 53:71-102
- Ishihama A, 54:499-518
- Jaeger K-E, 53:315-51  
Jannasch HW, 51:1-45

- Janse CJ, 54:157-85  
Jerris RC, 50:707-25  
Johnson CH, 53:389-409  
Johnson EA, 53:551-75  
Johnson MS, 53:103-28  
Johnston LH, 51:125-49  
Joiner KA, 51:415-62
- Kaper JB, 54:641-79  
Kaplan HB, 54:49-79  
Kasamatsu H, 52:627-86  
Khanna R, 54:19-48  
Kirk SH, 52:591-625  
Klein O, 52:397-421  
Klier CM, 50:513-52  
Koch AL, 50:317-48  
Kolenbrander PE, 50:513-52;  
54:413-37  
Kolter R, 54:49-79  
Kulaev IS, 54:709-34  
Kulakovskaya T, 54:709-34  
Kunik T, 54:187-219
- Lai C-C, 52:397-421  
Lamm ME, 51:311-40  
Lang-Unnasch N, 52:561-90  
Lawrence JG, 50:137-81  
Lee I-M, 54:221-55  
Lee MD, 52:423-52  
Lee MGS, 51:463-89  
Leonard BAB, 51:527-64
- Madden K, 52:687-744  
Magee PT, 54:463-98  
Malim MH, 52:491-532  
Manz W, 54:81-127  
Marasco W, 51:257-83  
Marcellus RC, 53:577-628  
Marqués S, 51:341-73  
Marzluf GA, 51:73-96  
Mathee K, 52:231-86  
McCaffery JM, 50:679-705  
McGarvey GJ, 51:285-310  
Meijer WG, 52:191-230  
Meints RH, 53:447-94  
Mekalanos JJ, 53:129-54  
Melnick JL, 50:1-24
- Miller JH, 50:625-43  
Miller KJ, 50:101-36  
Mills K, 52:533-60  
Missiakas D, 51:179-202  
Morgan BA, 51:125-49  
Murphy AD, 52:561-90
- Nakanishi A, 52:627-86  
Nakano MM, 52:165-90  
Nasser W, 50:213-57
- Odom JM, 52:423-52  
O'Toole G, 54:49-79
- Pantaleo G, 50:825-54  
Parales RE, 50:553-90  
Patel RN, 52:361-95  
Pérez-Martín J, 51:593-628  
Persing DH, 50:349-73  
Phung LT, 50:753-89  
Pla J, 54:463-98  
Pollard VW, 52:491-532  
Preston LA, 54:289-340
- Raina S, 51:179-202  
Ramig RF, 51:225-55  
Ramos JL, 51:341-73  
Ratledge C, 54:881-941  
Reetz MT, 53:315-51  
Regnery RL, 50:707-25  
Reineke W, 52:287-331  
Reiner DS, 50:679-705  
Reverchon S, 50:213-57  
Rhee Y, 54:187-219  
Riley M, 54:341-411  
Roberts IS, 50:285-315  
Roessner CA, 50:467-90  
Rondon I, 51:257-83  
Rood JJ, 52:333-60  
Rook GAW, 50:259-84  
Ross W, 50:645-705  
Roth JR, 50:137-81  
Roulston A, 53:577-628  
Ruby EG, 50:591-624
- Sahl H-G, 52:41-79  
Schiller NL, 54:289-340
- Schleifer K-H, 54:81-127  
Scott AI, 50:467-90  
Serres MH, 54:341-411  
Shapiro JA, 52:81-104  
Shimizu Y, 50:431-65  
Shimkets LJ, 53:525-49  
Shively JM, 52:191-230  
Silver S, 50:753-89  
Sinai AP, 51:415-62  
Sinclair D, 52:533-60  
Smith DL, 54:799-825  
Snyder M, 52:687-744  
Spaink HP, 54:257-88  
Squires CL, 54:775-98  
Stackebrandt E, 51:47-72  
Staley JT, 53:189-215  
Storz G, 54:439-61  
Stouthamer R, 53:71-102  
Stülke J, 54:849-80  
Sullivan DJ, 51:97-123  
Swanson MS, 54:567-613  
Szewzyk R, 54:81-127  
Szewzyk U, 54:81-127
- Takayama S, 51:285-310  
Taylor BL, 53:103-28  
Taylor DE, 53:353-87  
Tibayrenc M, 50:401-29  
Timmis KN, 51:341-73  
Ton-Hoang B, 53:245-81  
Toone WM, 51:125-49  
Tzfira T, 54:187-219
- Valent B, 50:491-512  
Van der Ploeg L, 51:463-89  
Van Etten JL, 53:447-94  
van Gijsegem F, 54:735-74  
van Keulen G, 52:191-230  
van Pée K-H, 50:375-99  
Voelker LL, 50:25-57
- Wallace RJ Jr, 52:453-90  
Wang I-N, 54:799-825  
Warren RAJ, 50:183-212  
Waters AP, 54:157-85  
Weinrauch Y, 53:155-87  
Whelen AC, 50:349-73

Whittaker CJ, 50:513-52  
Winans SC, 50:727-51  
Wong C, 51:285-310  
Wong TY, 54:289-340

Wood JM, 50:101-36  
Wright A, 54:681-708  
Young R, 54:799-825

Zaporojets D, 54:775-98  
Zhulin IB, 53:103-28  
Zuber P, 52:165-90  
Zychlinski A, 53:155-87



## CHAPTER TITLES, VOLUMES 50-54

### Prefatory Chapters

My Role in the Discovery and Classification of the Enteroviruses	JL Melnick	50:1-24
Small is Powerful: Recollections of a Microbiologist and Oceanographer	HW Jannasch	51:1-45
The Right Place at the Right Time	EA Adelberg	52:1-40
The Life and Times of a Clinical Microbiologist	A Balows	54:1-17

### Animal Pathogens and Diseases

Transformation of Leukocytes by <i>Theileria parva</i> and <i>T. annulata</i>	D Dobbelaere, V Heussler	53:1-42
Addiction Modules and Programmed Cell Death and Antideath in Bacterial Cultures	H Engelberg-Kulka, G Glaser	53:43-70
<i>Wolbachia pipientis</i> : Microbial Manipulator of Arthropod Reproduction	R Stouthamer, JAJ Breeuwer, GDD Hurst	53:71-102
Aerotaxis and Other Energy-Sensing Behavior in Bacteria	BL Taylor, IB Zhulin, MS Johnson	53:103-28
In Vivo Genetic Analysis of Bacterial Virulence	SL Chiang, JJ Mekalanos, DW Holden	53:129-54
The Induction of Apoptosis by Bacterial Pathogens	Y Weinrauch, A Zychlinski	53:155-87
Transmissible Spongiform Encephalopathies in Humans	ED Belay	53:283-314
Bacterial Biocatalysts: Molecular Biology, Three-Dimensional Structures, and Biotechnological Applications of Lipases	K-E Jaeger, BW Dijkstra, MT Reetz	53:315-51
Contributions of Genome Sequencing to Understanding the Biology of <i>Helicobacter pylori</i>	Z Ge, DE Taylor	53:353-87
Clostridial Toxins as Therapeutic Agents: Benefits of Nature's Most Toxic Proteins	EA Johnson	53:551-75

Viruses and Apoptosis	A Roulston, RC Marcellus, PE Branton	53:577-628
The Cytoskeleton of Trypanosomatid Parasites	K Gull	53:629-55
Assembly and Function of Type III Secretory Systems	G Cornelis, F van Gijsegem	54:735-74
Bacterial Virulence Gene Regulation: An Evolutionary Perspective	PA Cotter, VJ DiRita	54:519-65
Legionella Pneumophila Pathogenesis: A Fateful Journey from Amobae to Macrophages	MS Swanson, BK Hammer	54:567-613
The Development of Genetic Tools for Dissecting the Biology of Malaria Parasites	AP Waters, TF de Konig-Ward, CJ Janse	54:157-85
The Disease Spectrum of <i>Helicobacter pylori</i> : The Immunopathogenesis of Gastroduodenal Ulcer and Gastric Cancer	PB Ernst, BD Gold	54:615-40
<b>Applied Microbiology and Ecology</b>		
Regulation of Pectinolysis Genes in <i>Erwinia chrysanthemi</i>	N Hugouvieux-Cotte-Pattat, G Condemine, W Nasser, S Reverchon	50:213-57
The Role of Nucleic Acid Amplification and Detection in the Clinical Microbiology Laboratory	AC Whelen, DH Persing	50:349-73
Biosynthesis of Halogenated Metabolites by Bacteria	K-H van Pée Y Shimizu	50:375-99 50:431-65
Microalgal Metabolites: A New Perspective Genetically Engineered Synthesis of Natural Products: From Alkaloids to Corrins	CA Roessner, AI Scott	50:467-90
Mechanisms of Adhesion by Oral Bacteria	CJ Whittaker, CM Klier, PE Kolenbrander	50:513-52
Census and Consensus in Bacterial Ecosystems: The LuxR-LuxI Family of Quorum-Sensing Transcriptional Regulators	C Fuqua, SC Winans, EP Greenberg	50:727-51
Molecular Genetics of Sulfur Assimilation in Filamentous Fungi and Yeast	GA Marzluf	51:73-96
Microbial Aldolases and Transketolases: New Biocatalytic Approaches to Simple and Complex Sugars	S Takayama, GJ McGarvey, C Wong	51:285-310

Sulfur Tuft and Turkey Tail: Biosynthesis and Biodegradation of Organohalogens by Basidiomycetes	E de Jong, JA Field	51:375-414
Synthesis of Enantiopure Epoxides Through Biocatalytic Approaches	R Furstoss, A Archelas	51:491-525
Genetics of Eubacterial Carotenoid Biosynthesis: A Colorful Tale	G Armstrong	51:629-59
Lantibiotics: Biosynthesis and Biological Activities of Uniquely Modified Peptides from Gram-Positive Bacteria	H-G Sahl, G Bierbaum	52:41-79
Development of Hybrid Strains for the Mineralization of Chloroaromatics by Patchwork Assembly	W Reineke	52:287-331
New Perspectives on Microbial Dehalogenation of Chlorinated Solvents: Insights from the Field	MD Lee, JM Odom, RJ Buchanan Jr.	52:423-52
Constructing Polyketides: From Collie to Combinatorial Biosynthesis	R Bentley, JW Bennett	53:411-46

## Diversity and Systematics

Poles Apart: Biodiversity and Biogeography of Sea Ice Bacteria	JT Staley, JJ Gosink	53:189-215
HOLINS: The Protein Clocks of Bacteriophage Infections	R Young, I-N Wang, DL Smith	54:799-825
Oral Microbial Communities: Biofilms, Interactions, and Genetic Systems	PE Kolenbrander	54:413-37
Pathogenicity Islands and the Evolution of Microbes	JB Kaper, J Hacker	54:641-79

## Genetics and Physiology

Molecular Biology of Mycoplasmas	K Dybvig, LL Voelker	50:25-57
Osmoadaptation by Rhizosphere Bacteria	KJ Miller, JM Wood	50:101-36
Cobalamin (Coenzyme B <sub>12</sub> ): Synthesis and Biological Significance	JR Roth, JG Lawrence, TA Bobik	50:137-81
Microbial Hydrolysis of Polysaccharides	RAJ Warren	50:183-212
The Biochemistry and Genetics of Capsular Polysaccharide Production in Bacteria	IS Roberts	50:285-315
What Size Should a Bacterium Be? A Question of Scale	AL Koch	50:317-48
Breaking and Entering: Host Penetration by the Fungal Rice Blast Pathogen <i>Magnaporthe grisea</i>	RJ Howard, B Valent	50:491-512

Spontaneous Mutators in Bacteria: Insights into Pathways of Mutagenesis and Repair	JH Miller	50:625-43
rRNA Transcription and Growth Rate-Dependent Regulation of Ribosome Synthesis in <i>Escherichia coli</i>	RL Gourse, T Gaal, MS Bartlett, JA Appleman, W Ross	50:645-77
Cell Biology of the Primitive Eukaryote <i>Giardia lamblia</i>	FD Gillin, DS Reiner, JM McCaffery	50:679-705
Bacterial Heavy Metal Resistance: New Surprises	S Silver, LT Phung	50:753-89
The F <sub>0</sub> F <sub>1</sub> -Type ATP Synthases of Bacteria: Structure and Function of the F <sub>0</sub> Complex	G Deckers-Hebestreit, K Altendorf	50:791-824
Hemoglobin Metabolism in the Malaria Parasite <i>Plasmodium falciparum</i>	SE Francis, DJ Sullivan Jr, DE Goldberg	51:97-123
Getting Started: Regulating the Initiation of DNA Replication in Yea	WM Toone, BL Aerne, BA Morgan, LH Johnston	51:125-49
Making and Breaking Disulfide Bonds Against All Odds: The Survival Strategies of <i>Deinococcus radiodurans</i>	S Raina, D Missiakas	51:179-202
Transcriptional Control of the <i>Pseudomonas</i> TOL Plasmid Catabolic Operans is Achieved Through an Interplay of Host Factors and Plasmid-Encoded Regulators	JR Battista	51:203-24
Safe Haven: The Cell Biology of Nonfusogenic Pathogen Vacuoles	JL Ramos, S Marqués, KN Timmis	51:341-73
Transcription of Protein Coding Genes in Trypanosomes by RNA Polymerase I	AP Sinai, KA Joiner	51:415-62
Clues and Consequences of DNA Bending in Transcription	L Van der Ploeg, MGS Lee	51:463-89
Regulation of Acetate Metabolism by Protein Phosphorylation in Enteric Bacteria	V de Lorenzo, J Pérez-Martín	51:593-628
Something from Almost Nothing: Carbon Dioxide Fixation in Chemoautotrophs	AJ Cozzone	52:127-64
The Anti-Sigma Factors	JM Shively, G van Keulen, WG Meijer	52:191-230
	KT Hughes, K Mathee	52:231-86



Metabolic Changes of the Malaria Parasite During the Transition from the Human to the Mosquito Host	N Lang-Unnasch, AD Murphy	52:561-90
Aging in <i>Saccaromyces cerevisiae</i>	D Sinclair, K Mills, L Guarente	52:533-60
Cooperative Organization of Bacterial Colonies: From Genotype to Morphotype	E Ben-Jacob, I Cohen, DL Gutnick	52:779-806
Surface Receptors and Transporters of <i>Trypanosoma Brucei</i>	P Borst, AH Fairlamb	52:745-78
DNA Uptake in Bacteria	D Dubnau	53:217-44
Integrating DNA: Transposases and Retroviral Integrases	L Haren, B Ton-Hoang, M Chandler	53:245-81
Circadian Rhythms in Cyanobacteria: Adaptiveness and Mechanism	CH Johnson, SS Golden	53:389-409
Giant Viruses Infecting Algae	JL Van Etten, RH Meints	53:447-94
Mechanisms for Redox Control of Gene Expression	CE Bauer, S Elsen, TH Bird	53:495-523
Intercellular Signaling During Fruiting-Body Development of <i>Myxococcus xanthus</i>	LJ Shimkets	53:525-49
DNA Segregation in Bacteria	A Wright, GS Gordon	54:681-708
Functional Modulation of <i>Escherichia coli</i> RNA Polymerase	A Ishihama	54:499-518
Interim Report on Genomics of <i>Escherichia coli</i>	M Riley, MH Serres	54:341-411
Iron Metabolism in Pathogenic Bacteria	C Ratledge, LG Dover	54:881-941
Nucleic Acid Transport in Plant-Microbe Interactions: The Molecules That Walk Through the Walls	V Citovsky, T Tzfira, Y Rhee, M Chen, T Kunik	54:187-219
Oxygen Respiration by <i>Desulfovibrio</i> Species	H Cypionka	54:827-48
Proteins Shared by the Transcription and Translation Machines	CL Squires, D Zaporozets	54:775-98
Recent Developments in Molecular Genetics of <i>Candida Albicans</i>	MD De Backer, PT Magee, J Pla	54:463-98
Roles of the Glutathione- and Thioredoxin-Dependent Reduction Systems in the <i>Escherichia coli</i> and <i>Saccharomyces</i> <i>cerevisiae</i> Responses to Oxidative Stress	G Storz, O Carmel-Harel	54:439-61

- The Adaptive Mechanisms of *Trypanosoma*  
*brucei* for Sterol Homeostasis in Its  
Different Life-Cycle Environments

I Coppens, PJ Courtoy 54:129-56

## Immunology

- The HIV-1 Rev Protein

VW Pollard, MH Malim 52:491-532

## Morphology, Ultrastructure, and Differentiation

- Cell Polarity and Morphogenesis in

Budding Yeast

K Madden, M Snyder 52:687-744

- DNA Segregation in Bacteria

A Wright, GS Gordon 54:681-708

## Organismic Microbiology

- Toward a Unified Evolutionary Genetics of  
Microorganisms

M Tibayrenc 50:401-29

- The  $\beta$ -Ketoadipate Pathway and the Biology  
of Self-Identity

CS Harwood,  
RE Parales 50:553-90

- Lessons from a Cooperative, Bacterial-Animal  
Association: The *Vibrio fischeri*-*Euprymna*  
*sclopes* Light Organ Symbiosis

EG Ruby 50:591-624

- Xenorhabdus* and *Photorhabdus* spp.: Bugs  
That Kill Bugs

S Forst, N Boemare,  
B Dowds,  
E Stackebrandt 51:47-72

- Thinking about Bacterial Populations as  
Multicellular Organisms

JA Shapiro 52:81-104

- Bacteria as Modular Organisms

JH Andrews 52:105-26

- Anaerobic Growth of a "Strict Aerobe"  
(*Bacillus subtilis*)

MM Nakano, P Zuber 52:165-90

- Thymine Metabolism and Thymineless Death  
in Prokaryotes and Eukaryotes

SI Ahmad, SH Kirk,  
A Eisenstark 52:591-625

## Pathogenesis and Control

- The Pathogenesis of Tuberculosis

GAW Rook,  
R Hernandez-Pando 50:259-84

- Will the Real Agent of Cat-Scratch Disease  
Please Stand Up?

RC Jerri, RL Regnery 50:707-25

- Intracellular Antibodies (Intrabodies) for Gene  
Therapy of Infectious Diseases

I Rondon, W Marasco 51:257-83

- Interaction of Antigens and Antibodies at  
Mucosal Surfaces

ME Lamm 51:311-40

Nosocomial Outbreaks/Pseudo-Outbreaks Due to Nontuberculous Mycobacteria	RJ Wallace Jr, BA Brown, DE Griffith	52:453-90
Tour de Paclitaxel: Biocatalysis for Semi-Synthesis of Paclitaxel	RN Patel	52:361-95
Virulence Genes of <i>Clostridium Perfringens</i>	JI Rood	52:333-60
Bacterial Virulence Gene Regulation: An Evolutionary Perspective	PA Cotter, VJ DiRita	54:519-65
Phytoplasma: Phytopathogenic Mollicutes	I Lee, RE Davis, DE Gundersen-Rindal	54:221-55
Role of Cytotoxic T Lymphocytes in Epstein-Barr Virus-Associated Diseases	R Khanna, SR Burrows	54:19-48
<b>Physiology, Growth, and Nutrition</b>		
HOLINS: The Protein Clocks of Bacteriophage Infections	R Young, I-N Wang, DL Smith	54:799-825
Iron Metabolism in Pathogenic Bacteria	C Ratledge, LG Dover	54:881-941
Oxygen Respiration by <i>Desulfovibrio</i> Species	H Cypionka	54:827-48
Regulation of Carbon Catabolism in <i>Bacillus</i> Species	W Hillen, J Sülke	54:849-80
Root Nodulation and Infection Factors Produced by Rhizobial Bacteria	H Spaink	54:257-88
<b>Plant-Bacterial Interactions</b>		
Alginate Lyase: Review of Major Sources and Enzyme Characteristics, Structure-Function Analysis, Biological Roles, and Applications	N Schiller, TY Wong, LA Preston	54:289-340
Nucleic Acid Transport in Plant-Microbe Interactions: The Molecules That Walk Through the Walls	T Tzfira, Y Rhee, M-H Chen, T Kunik, V Citovsky	54:187-219
Root Nodulation and Infection Factors Produced by Rhizobial Bacteria	H Spaink	54:257-88
<b>Virology</b>		
Live Attenuated Varicella Vaccine	AM Arvin, AA Gershon	50:59-100
Immunopathogenesis of HIV Infection	G Pantaleo, AS Fauci	50:825-54
RNA Virus Mutations and Fitness for Survival	E Domingo, JJ Holland	51:151-78
Genetics of the Rotaviruses	RF Ramig	51:225-55
Regulators of Apoptosis on the Road to Persistent Alphavirus Infection	DE Griffin, JM Hardwick	51:565-92

Virocrine Transformation: The Intersection  
Between Viral Transforming Proteins and  
Cellular Signal Transduction Pathways

D DiMaio, C-C Lai,  
O Klein

52:397-421

How Do Animal DNA Viruses Get to the  
Nucleus?

H Kasamatsu,  
A Nakanishi

52:627-86

